SAMPLE PACKAGING AND SHIPPING 8.6

Generally, the shorter the time elapsed between sample collection and analysis, the more reliable will be the analytical results. Ship carefully packed samples as expeditiously as possible. Follow the packaging and shipping requirements of NWQL, QWSU, or other analyzing laboratory. For more information on shipping to NWQL, review NWQL Technical Memorandum 95.04 and Office of Water Quality Technical Memorandum 92.06 (see "Selected References and Internal Documents").

SAMPLE IDENTIFICATION AND PACKAGING 8.6.1

Use quality-assured sample containers (jars, bottles, or cartons) supplied by NWQL or QWSU. Analytical Services Request (ASR) forms must be completed in the field and included with each shipping container (cooler or carton). Do not seal the package without completing and including an ASR form, as described in 8.6.3.

1. Label each sample container using a permanent, waterproof marker, or use preprinted labels that will remain securely attached. Protect labels from water to prevent smearing.
   - Each label must, at a minimum, include
     Site ID number
     Date and time (MM-DD-YY @ HHMM) of collection
     Sample designation code
   - Do not put analytical requests such as schedule number and lab code adds or deletes on sample container instead of on the ASR form.
   - Field personnel might find it more convenient to pre-label sample containers with preprinted labels before going into the field.
2. Securely fasten each cap. Do not use tape or paraffin on lids of jars containing organic samples—tape can contaminate the sample.

3. For chilled samples:

   a. Pack samples in fresh ice for shipping with a volume of ice equal to at least the volume occupied by samples, but preferably twice the volume of ice to samples. The amount of ice necessary will vary depending on the length of time in transit from the field to lab and the time of year. During summer, in particular, the cooler and samples should be prechilled.

      - Do not send samples chilled with "blue ice" or other types of commercial, refreezable containers.
      - Do not chill sample containers with dry ice or with other substances that have a freezing point below 0ºC; this may cause sample containers to freeze and can result in ruined samples and (or) broken sample containers.
      - Do not mix ice/water with packing materials. Keep ice/water and packing materials totally separate. Do not mix foam peanuts with ice for shipping.

   b. Line all coolers with doubled (a bag within a bag) heavyweight trash bags. After samples and ice are placed in a doubled bag, seal each bag with a knot, or by gathering the top of the bag, folding it over, and securing with filament tape.

4. All samples can be shipped in coolers; samples not requiring chilling can be shipped in sturdy boxes, but these also should be lined with doubled heavyweight trash bags.

5. Always use adequate packaging materials to prevent breakage. NWQL will not accept samples shipped in vermiculite. Ship all glass jars in foam sleeves.

6. When sending multiple sets of samples in one shipping container, label each set of samples with a letter of the alphabet (for example, A, B, C, and so forth) with each sample container in a set having the same letter as others in the set.
   - Add this letter to the upper right hand corner of the ASR form.
   - Recommended procedure is to place all samples from a sample set in a separate bag to keep them together.
7. Package all sample sets for a particular schedule in the same cooler/carton.
8. Do not ship nutrient samples in coolers with samples that have been treated with nitric-acid preservative. Contamination from the acids used in sample preservation may create false readings for some nutrient species.
9. When shipping a single set of samples or subsamples in multiple coolers (or other shipping containers), indicate the number of samples being shipped on the outside shipping label.
10. Remember to include an ASR form for each sample sent to the laboratory.
    - Do not send samples in a shipping container without an ASR form.
    - ASR forms must not be separated from samples.
    - The ASR forms in different shipping containers may refer to the same site or station identification number, but the schedule and lab code information should apply only to samples shipped with the ASR form.

A sample container with an unreadable label means a wasted sample.